

Amendments to the claims:

This listing of claims replaces all prior versions, and listings, of claims in the application.

Listing of claims:

Claims 1-90 (cancelled).

91 (currently amended): A modified human TNF α molecule capable of raising neutralizing antibodies towards wild-type human TNF α following administration of said modified TNF α molecule to a human host, wherein at least one segment of the human TNF α molecule has been substituted by at least one peptide containing an immunodominant T cell epitope or a truncated form of said molecule containing an immunodominant T-cell epitope and one or both flanking regions of the human TNF α molecule comprising at least one TNF α B cell epitope, wherein the substitution is introduced in any one of the strands of the front β -sheet, in any one of the connecting loops or in any one of the B', I, or D strands of the back β -sheet, or in any one of the connecting loops and in any one of the B', I, or D strands of the back β -sheet, and which substitution leads to inactivation of the biological activity of human TNF α and which substitution essentially ensures preservation of the β -sheet structures of the B and G strands, wherein the inserted T cell epitope is promiscuous and immunogenic in a majority of human

HLA class II types, wherein the epitope is from Tetanus toxoid, and wherein said modified human TNF α molecule is selected from the group consisting of SEQ ID NO: 4, SEQ ID NO: 8, SEQ ID NO: 10, SEQ ID NO: 14, SEQ ID NO: 16, and SEQ ID NO: 20 ~~wherein the inserted T cell epitope is promiscuous and immunogenic in a majority of human HLA class II types; wherein the epitope is from Tetanus toxoid, and wherein said modified human TNF α molecule is selected from the group consisting of SEQ ID NO: 4, SEQ ID NO: 8, SEQ ID NO: 10, SEQ ID NO: 14, SEQ ID NO: 16, and SEQ ID NO: 20.~~

- 92 (previously presented): The human TNF α according to claim 91, having the amino acid sequence shown in SEQ ID NO: 8.
- 93 (previously presented): The human TNF α according to claim 91, having the amino acid sequence shown in SEQ ID NO: 10.
- 94 (previously presented): The human TNF α molecule according to claim 91, having the amino acid sequence shown in SEQ ID NO: 4 or SEQ ID NO: 16.
- 95 (previously presented): The human TNF α according to claim 91, having the amino acid sequence shown in SEQ ID NO: 20.

96 (previously presented): The human TNF α according to claim 91, having the amino acid sequence shown in SEQ ID NO: 14.

97 (currently amended): Dimers, oligomers or multimers of a modified human TNF α molecule capable of raising neutralizing antibodies towards wild-type human TNF α following administration of said modified TNF α molecule to a human host, wherein at least one segment of the human TNF α molecule has been substituted by at least one peptide containing an immunodominant T cell epitope or a truncated form of said molecule containing an immunodominant T-cell epitope and one or both flanking regions of the human TNF α molecule comprising at least one TNF α B cell epitope, wherein the substitution is introduced in any one of the strands of the front β -sheet, in any one of the connecting loops or in any one of the B', I, or D strands of the back β -sheet, or in any one of the connecting loops and in any one of the B', I, or D strands of the back β -sheet, and which substitution leads to inactivation of the biological activity of human TNF α and which substitution ~~essentially~~ ensures preservation of the β -sheet structures of the B and G strands.

Claims 98-132 (cancelled).

133 (new): A modified human TNF α molecule capable of raising neutralizing antibodies towards wild-type human TNF α following administration of said modified TNF α molecule to a human

host, wherein at least one segment of the human TNF α molecule has been substituted by at least one peptide containing an immunodominant T-cell epitope from tetanus toxoid, or a truncated form of said molecule containing an immunodominant T-cell epitope from tetanus toxoid and one or both flanking regions of the human TNF α molecule comprising at least one TNF α B-cell epitope, wherein the substitution is introduced in any one of the strands of the front β -sheet, in any one of the connecting loops or in any one of the B', I or, D strands of the back β -sheet, or in any one of the connecting loops and in any one of the B', I, or D strands of the back β -sheet, and which substitution leads to inactivation of the biological activity of human TNF α and which substitution ensures preservation of the β -sheet structures of the B and G strands.